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INCH-POUND

MIL-PRF-8805/47F  
3 September 1999  
SUPERSEDING  
MIL-S-8805/47E  
10 October 1972

## PERFORMANCE SPECIFICATION SHEET

### SWITCHES, SENSITIVE, SPDT, LEVER, 25 AMPERES, HERMETIC

This specification forms a part of MIL-PRF-8805, dated 23 January 1998, and is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-8805.

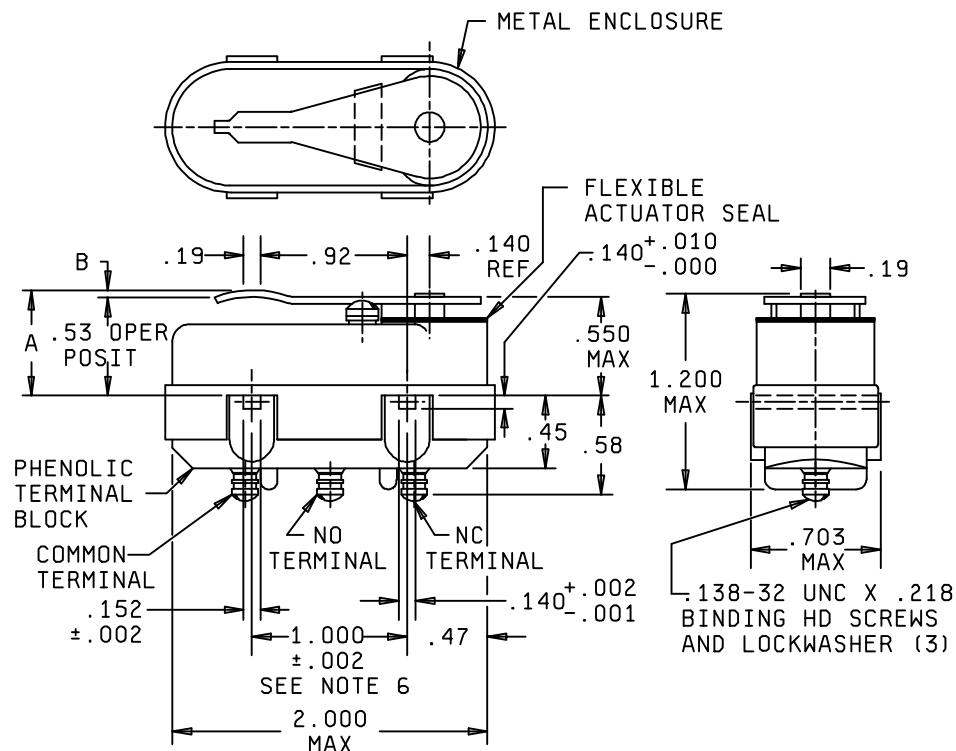


Figure 1. Dimensions and configurations.

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Inches	mm	Inches	mm
.003	0.08	.375	9.53
.004	0.10	.437	11.10
.012	0.30	.469	11.91
.015	0.38	.625	15.88
.030	0.76	.630	16.00
.031	0.79	.680	17.27
.042	1.06	.876	22.23
.072	1.83	1.0	25.
.093	2.36	1.295	32.89
.120	3.05	2.0	50.
.250	6.35	72.0	1828.
.257	6.53		

NOTES:

1. Dimensions are in inches.
2. Unless otherwise stated, tolerance is  $\pm 0.015$  (0.38 mm).
3. Exact shape of switch optional provided dimensions specified are not exceeded.
4. Mark, stamp, or mold NO and NC terminal designations on adjacent area of switch.
5. Metric equivalents are given for general information only.
6. Mounting holes accept .139 (3.53 mm) maximum diameter pins or screws on  $1,000 \pm .002$  (25.40 mm  $\pm .05$  mm) centers.

FIGURE 1. Dimensions and configurations - Continued.

REQUIREMENTS:

Dimensions and configurations: See figure 1.

Enclosure design: 5 (Hermetic).

Temperature characteristic: 1 (-55°C to +85°C).

Shock type: M (100 g's).

Vibration grade: 1 (10 to 500 Hz).

Operating characteristics: See table I.

Part or Identifying Number (PIN): See table I.

Short circuit: 700 amperes.

Strength of actuating means: 25 pounds.

Terminal strength: 30 pounds.

Contact resistance: Not applicable.

Dielectric withstanding voltage:

Sea level: 1,000 V rms initial. 200 V rms after electrical endurance (Application of test potential between unconnected terminals of the same pole is not required.).

Seal tests: Only watertight test shall be performed in group A of table VII and in group I of table VI.

Mechanical endurance: 25,000 cycles at .010 inch minimum overtravel.

Electrical endurance: 10,000 cycles.

Temperature rise: 65°C.

Electrical ratings: See table II.

Qualification inspection:

Group submission: See table III.

Quality assurance:

Group B: Explosion test not applicable.

Group B: Not applicable to inactive part numbers.

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TABLE I. Operating characteristics. 1/

PIN	A Maximum free position	B Maximum pretravel	Operating position	Maximum differential travel	Minimum overtravel	Actuating force	Minimum release force
MS25011-1 <u>2/</u>	<u>Inch</u> .600	<u>Inch</u> .065	<u>Inch</u> .53	<u>Inch</u> .020	<u>Inch</u> .010	<u>oz</u> 16 ±8	<u>oz</u> 4
MS25011-2 <u>2/</u>	.610	.085	.53	.020	.010	25 ±3	4
MS25011-3 <u>3/</u>	.790	.065	.72	.020	.010	16 ±6	4
MS25011-4	.610	.085	.53	.020	.010	25 ±3	4

1/ ±20 percent variation from specified values acceptable after test.

2/ MS25011-1 and MS25011-2 - inactive for new design.

3/ MS25011-3 has been canceled without replacement.”

TABLE II. Electrical ratings.

PIN	Load	Current capacity (amperes)		
		28 V dc	115 V ac, 60 Hz	120 V dc
MS25011-1	Resistive	25	1	1
MS25011-2	Inductive	10	1	.5
MS25011-4	Resistive	25	1	.5
	Inductive	8	1	.5

TABLE III. Group submission.

Examination or test	Basic switch <u>1/</u>	Other Switch	Extent of approval
Qualification inspection table of MIL-S-8805 (except operating characteristics in group VI shall be tested immediately preceding short circuit, rather than as the final test).	MS25011-2 <u>2/</u> and MS25011-4 (all sample units)	MS25011-1 <u>2/</u> (2 sample units) 1. Visual and mechanical examination 2. Operating characteristics	All

1/ MS25011-1 and MS25011-2 are inactive for new design.

2/ Qualification testing of MS25011-4 may be waived if testing is performed on MS25011-2.

Custodians:

Air Force - 11  
Army - CR  
Navy - EC  
DLA - CC

Preparing activity:

DLA - CC

(Project 5930-1691-019)

Review activities:

Air Force - 99  
Army - AR, AV, MI  
Navy - AS, MC, SH